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# Preparation & Standardization of 0.1 N NaOH Solution

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How could you prepare one liter of N/10 NaOH solution?  
 Knowing that the atomic mass of :  
 Na = 23 , O = 16 and H = 1.

$$N = \frac{\text{no. of equivalents}}{\text{Volume ( L )}} = \frac{\text{Mass / Equivalent mass}}{\text{Volume ( L )}}$$

$$= \frac{\text{Mass} * 1000}{\text{Eq. mass} * V ( ml )}$$

$$0.1 = \frac{\text{Mass} * 1000}{40 * 1000}$$

Mass = 4 g of NaOH.

So, we should weigh 4 g of NaOH , dissolve it in water and make up to the mark of 1 liter volumetric flask.

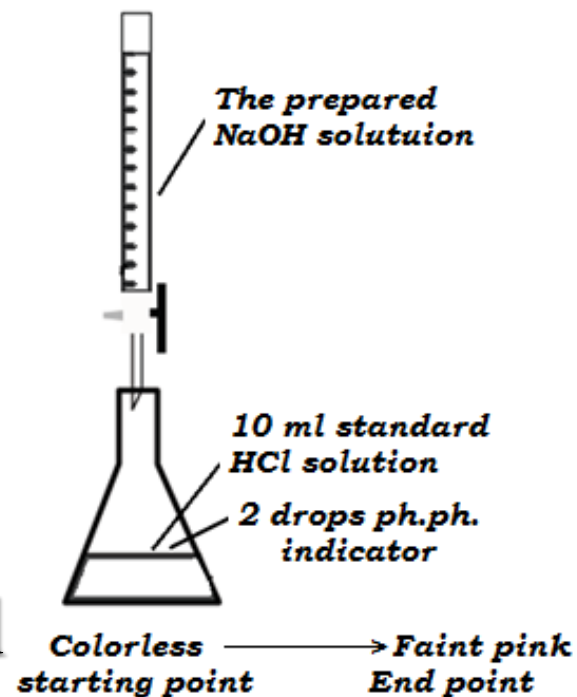


# Standardization of the prepared NaOH solution

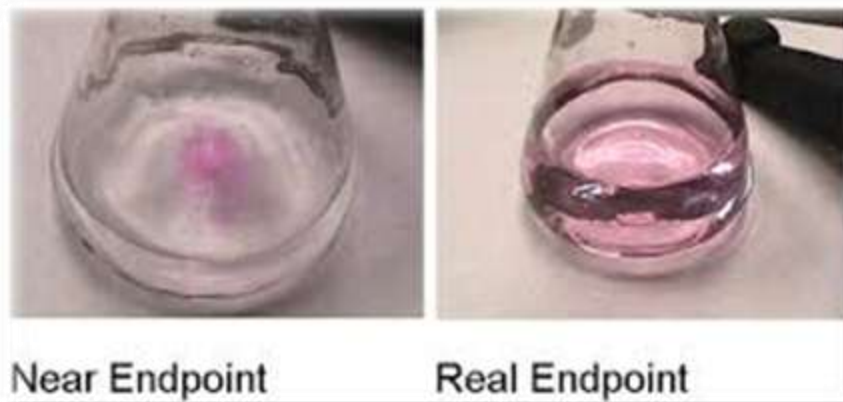
Solutions of NaOH are standardized by titration with std. acids of equivalent normality.

## Method:

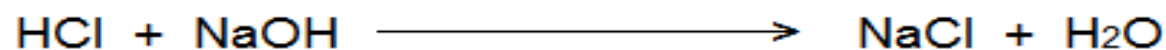
- 1- Using a bulb pipet, transfer 10 ml of std. HCl soln. to a conical flask.
- 2- Add 1 - 2 drops of ph.ph. as an indicator.
- 3- Fill the burette with the prepared NaOH solution.



4- Add NaOH drop by drop into the conical flask until the color of the solution is faint pink.



5- The exact normality of NaOH solution is obtained from the following calculations.



$$N_1 V_1 \text{ (NaOH)} = N_2 V_2 \text{ (HCl)}$$

